

**REMARKS**

Claims 1-27, 29, 30, 32-57 and 59 are pending in the present application. Claims 1-26 and 34-56 are withdrawn from consideration.

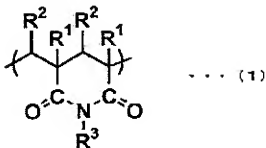
**Claim Rejections under 35 U.S.C. §103(a)**

Claims 27-33, 57 and 59 were rejected under 35 U.S.C. §103(a) as allegedly being obvious by Yano et al. (WO 03/085424) (hereinafter Yano) in view of JP2-153904 (hereinafter JP '094). Applicants respectfully traverse this rejection.

The presently claimed polarizer-protective film is not rendered obvious by and differs greatly from Yano. Moreover, the presently claimed polarizer-protective film is not rendered obvious by and differs greatly from Yano in terms of technical features, as discussed below.

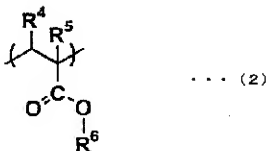
Specifically, the presently claimed polarizer-protective film, as recited in claim 27 of the present application, includes the following Features a to e:

Feature a: The presently claimed polarizer-protective film comprises an imide resin which includes: a repeating unit represented by General Formula (1); a repeating unit represented by General Formula (2); and a repeating unit represented by General Formula (3),



where each of R<sup>1</sup> and R<sup>2</sup> independently represents a hydrogen atom or an alkyl group having 1 to 8 carbon atoms, and R<sup>3</sup> represents a hydrogen atom, an alkyl group having 1 to 18

carbon atoms, a cycloalkyl group having 3 to 12 carbon atoms, or an aryl group having 6 to 10 carbon atoms,



where each of  $R^4$  and  $R^5$  independently represents a hydrogen atom or an alkyl group having 1 to 8 carbon atoms, and  $R^6$  represents an alkyl group having 1 carbon atom,



where  $R^7$  represents a hydrogen atom or an alkyl group having 1 to 8 carbon atoms, and  $R^8$  represents an aryl group having 6 to 10 carbon atoms, and

wherein the imide resin does not include a repeating unit represented by General Formula (2) where  $R^6$  represents a hydrocarbon group having 2 or more carbon atoms.

Feature b: A content of the repeating unit represented by General Formula (3) ranges from 5 wt% to 50 wt% with respect to an amount of total repeating units of the imide resin.

Feature c: A thickness of the presently claimed polarizer-protective film falls within a range from 20  $\mu\text{m}$  to 300  $\mu\text{m}$ .

Feature d: An orientation birefringence of the imide resin ranges from  $-0.1 \times 10^{-3}$  to  $0.1 \times 10^{-3}$ .

Feature e: A photoelastic coefficient of the imide resin is not more than  $10 \times 10^{-12} \text{m}^2/\text{N}$ .

In the presently claimed polarizer-protective film, the repeating unit represented by General Formula (1) and the repeating unit represented by General Formula (3) are copolymerized as indicated in Feature a. This intends to adjust the orientation birefringence of a film as a whole to a value within the range of Feature d by copolymerizing (i) the repeating unit (glutarimide structural unit) represented by General Formula (1), the repeating unit mainly having a positive orientation birefringence, with (ii) the repeating unit represented by General Formula (3), the repeating unit having a negative orientation birefringence. In other words, the subject matter of claim 27 of the present application has the feature that the repeating unit represented by General Formula (3) is copolymerized with the respective repeating units represented by General Formulae (1) and (2) so that the orientation birefringence of a film as a whole is adjusted as defined in Feature d. This feature is disclosed in, for example, the specification as originally filed, page 41, lines 11-15 (paragraph [0105] of the corresponding International Publication).

In contrast, Yano discloses, as illustrated in the claims and column 7, lines 37-39, *blending* the thermoplastic resin (A) (corresponding to the repeating unit represented by General Formula (1) of the present application) with the thermoplastic resin (B) (corresponding to the repeating unit represented by General Formula (3) of the present application) in order to adjust the orientation birefringence of a film as a whole. In other words, Yano possesses the feature

that the thermoplastic resin (A) having a positive orientation birefringence is blended, but not copolymerized, with the thermoplastic resin (B), having a negative orientation birefringence so that the orientation birefringence is adjusted. This feature is disclosed in, for example, Preparation Examples 1 and 2 in column 19 of Yano. Thus, Yano cannot render obvious the presently claimed invention.

As discussed above, while the presently claimed invention and Yano may both intend to adjust the orientation birefringence of a film as a whole, the presently claimed invention and Yano differ greatly from each other in how each achieves said intention. Thus, the disclosure of Yano, even in view of JP '904, does not render obvious the presently claimed invention. The presently claimed invention possesses the feature of copolymerizing the repeating unit represented by General Formula (1) with the repeating unit represented by General Formula (3), whereas Yano simply blends the thermoplastic resins (A) and (B) instead of copolymerizing them. Thus, the presently claimed invention is not rendered obvious by the cited art.

Yano does not disclose, teach or suggest at least the technical feature of the presently claimed invention that the repeating unit represented by General Formula (1) and the repeating unit represented by General Formula (3) are copolymerized so that the orientation birefringence is adjust to fall within the range of Feature d.

Since the presently claimed invention and Yano differ greatly from each other in terms of technical feature, as discussed above, a skilled artisan could not, even based on the disclosure of Yano, achieve the presently claimed invention, which copolymerizes particular constitutional units in order to adjust the orientation birefringence of a film as a whole. At least this feature is

also neither taught nor suggested in JP '904, serving as a secondary reference. Thus, the presently claimed invention is not rendered obvious by the combination of Yano and JP '904.

The Examiner has further rejected claim 27 of the present application as being obvious over Yano, which allegedly discloses the following:

- (i) The “olefin-maleimido copolymer” as the thermoplastic resin (A) can include styrene and the like at a percentage of 50 mole % or less (column 6, lines 11-24).
- (ii) The thermoplastic resin (A) may be a “glutar imido based resin” (column 6, lines 32-39).

However, this is an erroneous indication.

Specifically, the “olefin-maleimido copolymer” and the “glutar imido based resin” differ greatly from each other, at least in terms of structure. Thus, even in reference to a description that the “olefin-maleimido copolymer” can include repeating units of a vinyl based monomer such as styrene, a skilled artisan would not and cannot think of similarly including repeating units of a vinyl based monomer in the “glutar imido based resin,” which differs greatly from the “olefin-maleimido copolymer”, at least in terms of structure. Thus, Yano cannot render obvious the presently claimed invention.

In addition, since the “olefin-maleimido copolymer” and the “glutar imido based resin” differ greatly from each other in terms of structure, they may also differ from each other in terms of degree and nature of causing a positive orientation birefringence. Thus, a skilled artisan

would not include repeating units of a vinyl based monomer in the “glutar imido based resin” at a proportion equal to the proportion for the “olefin-maleimido copolymer.”

As discussed above, Yano lacks at least the technical feature of copolymerizing the thermoplastic resin (A) with repeating units of a vinyl based monomer in order to control the orientation birefringence of a film as a whole. Yano does not provide any reason or motivation for copolymerizing repeating units of a vinyl based monomer with the “glutar imido based resin.”

In conclusion, the presently claimed invention is not rendered obvious by and differs greatly from Yano, at least in the technical features herein discussed. A skilled artisan at the time of invention would not have considered it obvious to achieve the presently claimed invention, in view of the disclosure of Yano and JP ‘904. Furthermore, combining Yano with JP ‘904, which merely discloses the composition of a resin, does not render the presently claimed invention obvious.

### **Conclusion**

In view of the above, Applicants respectfully submit that the claimed invention is allowable and ask that the rejection under 35 U.S.C. §103 be reconsidered and withdrawn. Applicants respectfully submit that this case is in condition for allowance and allowance is respectfully solicited.

If any points remain at issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the local exchange number listed below.

Application No.: 10/581,267  
Art Unit: 1787

Response under 37 CFR §1.116  
Attorney Docket No.: 062455

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,  
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